RED BUTTE CREEK

Health Consultation

This fact sheet gives highlights of the Utah Department of Health's (UDOH) Health Consultation (HC) on the Red Butte Creek site. If you would like a copy of the full HC report, contact the UDOH, Environmental Epidemiology Program (EEP). Contact information is located on the back of this summary or visit: www.health.utah.gov/enviroepi

Overview:

On Saturday, June 12, 2010, a high-voltage electrical arc created a small hole in the Chevron pipeline, resulting in a crude oil leak that spilled directly into Red Butte Creek. It is estimated that approximately 33,600 gallons of crude oil spilled.

- In October 2011, the EEP released a Public Health Assessment (PHA). The PHA evaluated the health risks to residents from crude oil contamination and the impact to the environment from the crude oil spill, specifically focusing on water and air.
- **Based upon the available data regarding water and sediment contamination of the Red Butte Creek due to the Chevron oil spill, the EEP found NO apparent health hazard to the community due to PAH exposure.**

Although cleanup of the oil and restoration of the creek has occurred, many area residents are still concerned about chronic health effects resulting from exposure to crude oil.

- This document is an extension of that PHA and addresses community concerns regarding exposures to polycyclic aromatic hydrocarbons (PAHs) in the water and creek soil sediment.

Specific Chemical Health Effects:

The potential for adverse health effects depends on many factors, including:

(1) The amount of each chemical to which a person is or has been exposed;
(2) How long a person is exposed;
(3) The route by which a person is exposed;
(4) The health condition of the person;
(5) The nutritional status of the person; and
(6) Exposure to other chemicals (such as cigarette smoke or chemicals in the work place).

The EEP found :

Surface Water Ingestion—The accidental ingestion of PAHs that occurs when playing and swimming in Red Butte Creek will not harm public health.

Surface Water Dermal Contact—The dermal contact with PAHs that occurs when playing and swimming in Red Butte Creek will not harm public health.

Soil Sediment Ingestion —The ingestion of PAHs in Red Butte Creek soil sediment does not pose a health hazard to the public.

Soil Sediment Dermal Exposure—The dermal contact with PAHs that occurs when playing and swimming in Red Butte Creek will not harm public health.

Polycyclic Aromatic Hydrocarbons:

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, **oil and gas**, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar**, crude oil**, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

How might I be exposed to PAHs?

PAHs are present throughout the environment, and you may be exposed to these substances at home, outside, or at the workplace. Typically, you will not be exposed to an individual PAH, but to a mixture of PAHs.

In the environment, you are most likely to be exposed to PAH vapors or PAHs that are attached to dust and other particles in the air. Sources include cigarette smoke, vehicle exhaust, asphalt roads, coal, coal tar, wildfires, agricultural burning, residential wood burning, municipal and industrial waste incineration, and hazardous waste sites.

How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

How can PAHs affect my health?

In the body, PAHs are changed into chemicals that can attach to substances within the body. PAHs can be harmful to your health under some circumstances. Several of the PAHs, including benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, and indeno[1,2,3-c,d]pyrene, have shown that exposure by breathing or skin contact, for long periods, to mixtures that contain PAHs can cause cancer.

For more information:

Local:

Salt Lake Valley Health Department
www.slvhealth.org

SLVHD
Salt Lake Valley Health Department

State:

Utah Department of Health
Environmental Epidemiology Program
(801) 538-6191
www.health.utah.gov/enviroepi

UTAH APPLETREE
ATSDR's Partnership to Promote Localized Efforts to Reduce Environmental Exposures

Federal:

Agency for Toxic Substance and Disease Registry
www.atsdr.cdc.gov
www.atsdr.cdc.gov/toxfaqs

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY